

The College of Western Idaho Course Syllabus [Math 144 Fall 2020]

Notice of Student and Instructor Accountability

Students and Instructors are accountable for all information on this syllabus, which is located in this course's Blackboard Site.

Course Information

Mathematics
Trigonometry
Math 144 -022D

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Course Description

This course covers right triangle and circular function approaches to trigonometry, graphs of trigonometry functions, trigonometry identities, conditional equations, right and non-right triangle applications of trigonometry, inverse trigonometry functions, trigonometry of complex numbers, including DeMoivre's Theorem, polar coordinates and equations, and parametric equations. Credit is not awarded in both MATH 144 and MATH 147.

Prerequisite(s): MATH 143 or equivalent placement score.

Schedule

- Class meeting days Class meeting days: Monday, Tuesday, Wednesday, Thursday
 - o Meeting start time and end times: 1:49-2:48 pm
- Location: Garden Valley School District Math Room
- Session of the course: Regular 15-wk session Jan. 19, 2021 –May 15, 2021
- HOMEWORK Homework packets will be due each Monday unless otherwise specified in the Homework Schedule. In the event that Monday is a holiday, the homework packet will be due on the following Tuesday. Please refer to the Homework Schedule for specific due dates. For faster feedback, students may turn in assignments individually. Each assignment in homework packet will be graded individually. For example, Homework #1 is made up of two individual assignments; assignment 6.1 will receive its own grade and assignment 6.2 will receive its own grade. Assignment are grouped into packets to give students additional time to complete work. No late work will be accepted. In order to get credit for completed problems, work solving the problem must be shown. All solving must be the student's own

work. The Homework Schedule can be found in this syllabus under the heading of Course Calendar. Homework must include a heading in the format of

Student Name Course Homework # Problem Set

If absent due to illness, students may turn in assignments as readable photos or scans through email to wheekathorn@gvsd.net

- QUIZZES -- A short quiz will be given each Monday on the concepts of current study. Quizzes are used to give immediate feedback to students.
- EXAMS Exams will be taken at the completion of each unit. Exams missed due to absenteeism must be taken within two days of return to school and will be by appointment outside of class hours; exams not taken during this time frame will receive a score of zero in the grade book. No retakes or corrections of exams are allowed. An Exam Schedule is listed below under the heading Course Calendar.
- FINAL EXAM— There will be a cumulative final exam at the end of the semester. Per departmental policy, a student must earn at least a 60% on the final exam to be eligible to pass the class with a grade of C or better. Students who do not earn a 60% or better on the final exam will either be assessed a grade of D or F, as appropriate. The final exam is scheduled for May 12, 2021. Students unable to take the exam on May 12, 2021 must make alternate arrangements with instructor. All final exams must be completed before May 13, 2021 4:00 pm.
 - Challenge Exam: Students who do not earn at least a D (60% or higher) on the final exam AND have a final average for the semester (including the final exam grade) of 70% or better will be given the opportunity to take a challenge exam. This exam is offered in the CWI Testing and Assessment locations and is available for a limited time after the end of the semester. Students who can earn a 60% or better on the challenge exam will have their grade changed from the D or F given based on the departmental policy to the letter grade that matches their original semester average. Students eligible for this challenge opportunity will be notified by their instructor of their eligibility along with details regarding dates of availability and the timeframe for grade changes. Please note: This opportunity is not available to all students who fail the final exam. It is only available to students who fail the final exam whose semester average is not a D or an F after having done so. Those students who qualify will be contacted by the instructor of this course with additional details.

Instructor Availability

Other than class time, instructor will be available to students during scheduled office hours and through email listed below. For additional times, please contact instructor for an appointment.

- Office Hours: M,T, TH 3:50 4:30 pm; Part Fridays 10:00am -12:00 pm
- Part Friday Dates: Feb. 5, Mar. 5, Mar. 26, Apr. 23, May 7
- Email: wheckathorn@gvsd.net

Course Learning Outcomes

The course objective is to prepare students for Calculus.

Students completing this course are expected to acquire the ability and skills to:

SLO 1 Apply Trigonometric Content.

- 1. Create mathematical models
- 2. Solve application problems
- 3. Justify and interpret solutions within the context of the problem
- 4. Communicate rationale behind choice of strategy

SLO 2 Use and Understand Trigonometric Functions.

- 1. Understand right triangle and circular functions definitions.
- 2. Evaluate trigonometric functions and their inverses
- 3. Solve right triangles
- 4. Solve trigonometric equations.
- 5. Identify and create basic sine and cosine graphs and perform simple transformations.

SLO 3 Use and Understand Trigonometric Identities.

- 1. Simplify trigonometric expressions.
- 2. Verify trigonometric identities.
- 3. Evaluate trigonometric functions
- 4. Solve any triangle

SLO 4 Use and Understand Related Trigonometric Concepts.

- 1. Use and understand complex numbers in trigonometric form
- 2. Solve polar equations
- 3. Solve parametric equations

Outcomes Assessment

Student knowledge of course objects will be measured through unit exams and the final exam. Unit exams take place every two to three weeks at the completion of each unit in the textbook. The final exam for this course will be CWI's final exam

Grading Policy

- Grading scale
 - Methods used to evaluate student performance (required assignments, quizzes, group work, participation, presentations, exams, essays, skills tests, etc.) and percentage or points breakdown.
 - Sample policy (modify as needed): Your overall grade for the course will be calculated using the following weights and categories:

Category	Weight
Homework	15%
Quizzes	20%
3 Exams	45%
Final Exam	20%

TOTAL: 100%

Letter grades will be determined as follows:

A: 90-100%
B: 80-89%
C: 70-79%
D: 60-69%
F: 59% or below

Textbooks and Required Materials

The textbook for the course is <u>PreCalculus A Graphing Approach by Hungerford, Jovell, and Mayberry</u>. A scientific calculator is needed for this course.

Course Calendar

Homework Schedule: Homework #1: Due Jan. 25, 2021 6.1: 1-12, 15-28, 30, 32, 41, 45p. 419 - 4216.2: 1 – 21 ALL, 27 – 41 ODD, 42, 46, 60 P.429 - 431Homework #2: Due Feb. 1, 2021 6.3: 1-6, 15-21, 25-30, 44, 46, 79-82P. 441 - 442 6.4: 1-9 odd, 24 – 40, 48 – 50 p. 452 P. 460 - 461 6.5: 1 – 8, 15, 17, 18, 20, 24, 26 – 29, 37 – 44, 55, 56 Homework #3: Due Feb. 8, 2021 7.1: 1-3, 7-14, 21-33 odd, 44-47, 49-54p. 483 - 484Homework #4: Due Feb. 15, 2021 7.2: Graph Cosecant, Secant, and Cotangent Functions Worksheet 7.3: Periodic Graphs and Amplitude Worksheet Homework #5: Due Feb. 18, 2021 7.4: Graph Trigonometric Functions with a Horizontal Shift Worksheet Homework #6: Due Mar. 1, 2021 8.2: 1 - 13, 27 - 41p. 536 8.3: 23 - 25, 27, 29, 33 - 39p. 545 - 546Homework #7: Due Mar. 8, 2021 8.4: 1, 2, 5-9p. 555 - 556 9.1: 5 - 8, 9 - 17, 27, 28, 54 - 64 even p. 580 - 581Homework #8: Due Mar. 22, 2021 9.2: 1-12, 19-34p. 587 9.3a: 1 – 11 odd, 15 – 22, 23 – 29 odd p. 600 Homework #9: Due Mar 29, 2021 9.3b: Power Reducing Formulas Worksheet 9.4: 1-6, 8-22p. 606 Homework #10: Due Apr. 5, 2021 10.1: 1 - 11 odd, 19 - 33 odd p. 622 – 623 Homework #11: Due Apr. 12, 2021 10.2: 1 – 15 odd, 23 – 33 odd, 41 – 49 odd p. 634 - 635

10.3: 1 - 13, 33 - 40

Homework #12: Due Apr. 19, 2021

p. 642 - 643

Exam Schedule:

Exam 1 Feb. 2, 2021 covers concepts in Unit 6
Exam 2 Feb. 18, 2021 covers concepts in Unit 7
Exam 3 Mar. 30, 2021 covers concepts in Unit 8 and 9
Exam 4 Apr. 27, 2021 covers concepts in Unit 10

Final Exam: May 12, 2021

Course Expectations

The average student can expect to spend approximately 2 hours per week preparing for class. In general this course will meet four days per week.

- It is recommended that students bring a scientific calculator for use in class. Scientific
 Calculators may be checked out for the day from instructor; special permission must be
 obtained from instructor for a longer time period.
- No food or drinks are allowed in class
- No cell phones are allowed in class
- No late work will be accepted. If students will be missing class because they have an athletic
 event, homework is still due; students may turn homework in earlier in the day. definition of
 attendance and attendance policy
- Class cancelation will be take place in the event of school closure. All school closures will be communicated to parents via Lumens.
- Complete end of course evaluations

Personal Technical Skills

This course will not provide information on how to use a computer, use Blackboard, navigate the web or manage electronic files. Students who are having difficulty should contact their instructor, <u>IT Help Desk</u> or <u>Tutoring Services</u>. Please use the resources listed above or speak with the instructor before dropping a course.

Students must be able to do the following with or without accommodation:

- Use an internet browser to navigate the internet and Blackboard.
- Download, upload, create, save, edit and open documents using Microsoft Office applications, such Word, Excel and PowerPoint.
- Download and upload audio and video files.

Civility and Behavioral Expectations

The College of Western Idaho is committed to educational excellence and recognizes that to achieve that excellence, students, faculty, and staff have a right to be in a safe environment, free of disturbance and civil in all aspects of human relations. Membership in the CWI learning community places a special obligation on all members to preserve the safe learning environment, regardless of the medium of the environment. It is the responsibility of instructors to determine, maintain, and enforce the standards of behavior required to preserve that safe environment.

Behavior that has a negative impact on the learning environment is prohibited. Such behavior may include, but is not limited to, rude, sarcastic, obscene, or disrespectful and/or disruptive behavior. Instructors will determine the appropriate response to problematic behavior in line with the procedures stated in the CWI Student Handbook. Problematic behavior may result in a student being removed from the class session and/or referred to the CWI Academic Conduct Process. For information on how problematic behavior will be managed, see the CWI Student Handbook. It is the student's responsibility to check their email to receive notification of any scheduled appointments or other urgent communications.

Any student or other member of the learning community may report a violation of the Student Code of Conduct here.

Academic Integrity

One of the College's Core Themes is <u>Instructional Excellence</u>, and in order to achieve instructional Excellence, academic integrity must be upheld. Academic Integrity is the "commitment to five fundamental values: honesty, trust, fairness, respect, and responsibility. ... these five values, plus the courage to act on them even in the face of adversity, are truly foundational to the academy" (<u>The Fundamental Values of Academic Integrity</u>, 2013). These values are especially important in how students represent their own learning, ideas, and work. Practicing academic integrity includes, but is not limited to, non-participation in the following behaviors: cheating, plagiarism, falsifying information, unauthorized collaboration, facilitating academic dishonesty, and violating program policies and procedures.

For additional information on academic integrity expectations, see the <u>Student Code of Conduct</u>. Violations may result in disciplinary action ranging from failure of the assignment to failure of the entire course. Acts of academic dishonesty, especially when sanctions are given, are reported and run through the Academic Conduct Process. Repeated acts of academic dishonesty have more severe institutional consequences.

Title IX & A Respectful Community

Title IX guarantees all students the right to an education free from discrimination on the basis of sex. This includes the right to an education free from sexual harassment, including sexual assault. This may include unwelcome conduct of a sexual nature in class, or in online discussion boards or through chat or video conferences. This law also protects students from discrimination based on pregnancy or being a parent and provides support options as well. If you, or someone you know, may have been experienced sexual harassment or discrimination of any kind, you are encouraged to report it to the College Title IX Coordinator by completing a report here, or by e-mailing respectfulcommunity@cwi.edu. Filing a report allows the College to provide supportive measures to those involved. It does not obligate a student to

go forward with an investigation, and all information reported is protected under federal law. For more information, <u>click here.</u>

Student Services

CWI provides a number of offices and services to assist students on their academic journey. Below is a list of the services most commonly accessed by students:

- One Stop Service Centers Provides assistance with admissions, advising, registration, financial aid, and most other common needs you may have. They are a good first stop for any questions.
- <u>Student Disability Services</u> Provides accommodations and support for students with a range of disabilities.
- Counseling Services Short-term counseling for students provided free of charge.
- <u>Library & Research Support</u> Assists students with research, study skills, textbook reserves and other services key to academic success.
- <u>Tutoring Center</u> Free tutoring services on a range of academic subjects, available to all enrolled students.
- <u>Writing Center</u> Provides strategies to help students identify opportunities to improve the quality of their writing, free of charge.
- <u>Assessment & Testing</u> Proctoring services for a range of course exams, accommodated testing, and outside certification tests.
- <u>Student Affairs</u> Provides a range of engagement opportunities, including professional and interest organizations, student government, support for veteran students & families, and CARE Services to support students through unexpected life events.

CWI COVID-19 Response

CWI is committed to providing a safe learning environment for all of our students. We will be monitoring the class environment and delivery to ensure continued compliance with CDC and State of Idaho guidelines. Any change to course delivery will be communicated directly to students.

Emergency Procedures

In the event of an emergency, students are to follow posted instructions for evacuation or procedures appropriate to emergency event.

Affidavit of Syll	abus as Contract
Please sign and date below. Turn in signed syllabus.	Copies will be made and returned to student.
Student Signature	Date